RAIL: DELIVERING NEW CAPABILITIES

SDDC Symposium
Denver, CO
March 22-26, 2004

Agenda

- Safety Briefing
- Panel Introduction
- Rail Overview
- Demand Planning
- Industry ITV
- Safety & Security
- Summary
- Q&A

Rail Industry Overview

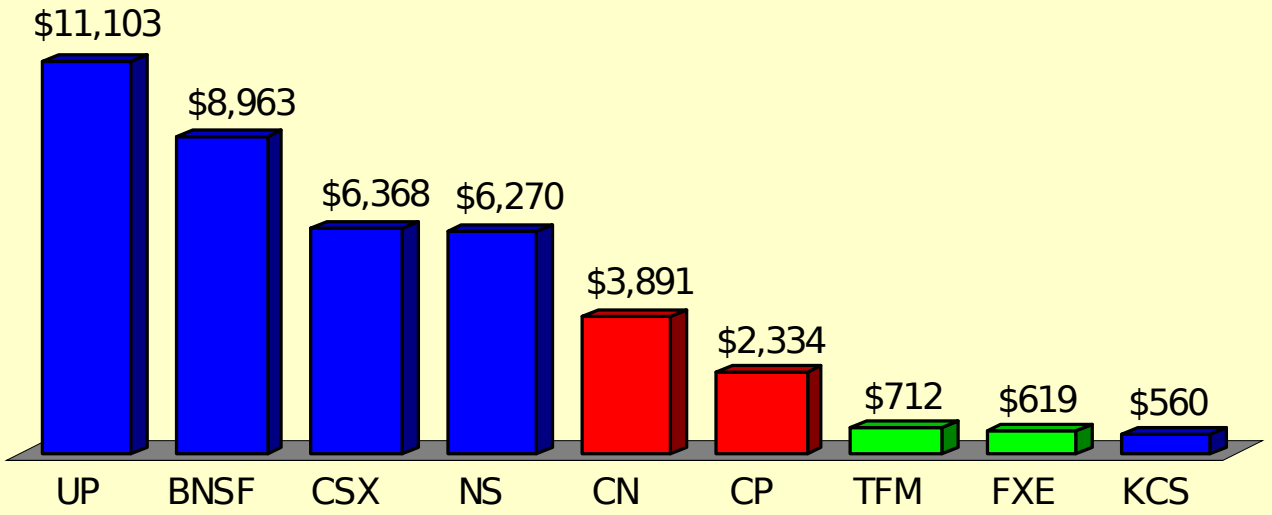
Jon Meyer
CSX Transportation

Overview of U.S. Freight Railroads

- An indispensable part of our nation's transportation system
- Serve nearly every industrial, wholesale, and retail sector
- Spend billions of dollars each year building and maintaining our rights-of-way
- An integrated network
- Provide the world's most efficient freight rail service

AAR Full Members

Amtrak
Burlington Northern Santa Fe
CN
Canadian Pacific
CSX
Kansas City Southern
Manufacturers Railway Company
Metra
Norfolk Southern
RailAmerica
Texas Mexican Railway Company
Union Pacific
Vermont Railway Inc
Wheeling & Lake Erie Railway


Major North American Railroads By 2002 Revenue
(million U.S. dollars)
$11,103
$8,963
$6,368
$6,270
$3,891
$2,334
$712
$619
$560
UP
BNSF
CSX
NS
CN
CP
TFM
FXE
KCS

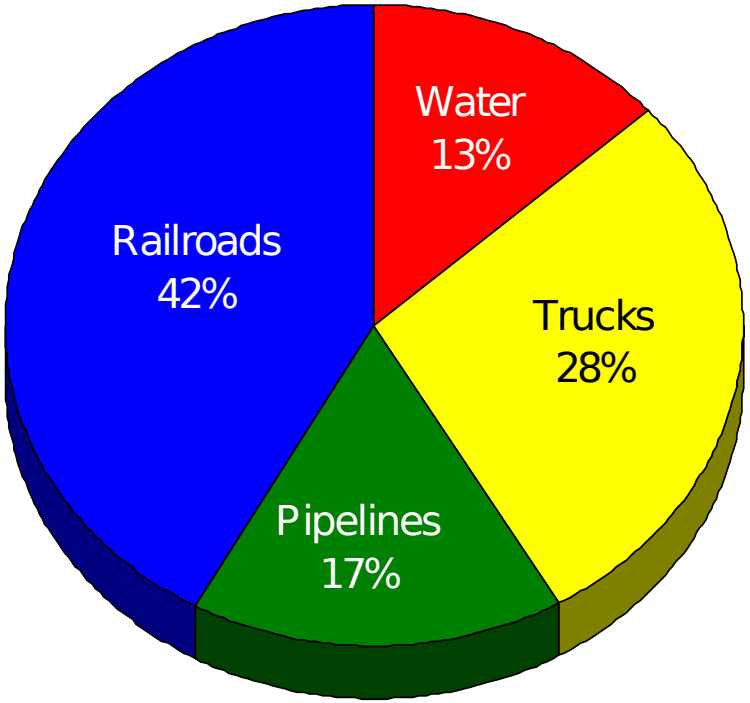
The U.S. Freight Railroad Industry: 2002

Type of Railroad	Number	Miles Operated*	Employees	Freight Revenue ($ billions)
Class I	7	100,125	157,372	$34.11
Regional	31	15,129	7,807	1.30
Local Linehaul	309	20,015	5,102	0.91
S&T	205	6,429	6,779	0.59
Canadian**	2	570	n/a	n/a
Total	554	142,268	177,060	$36.92

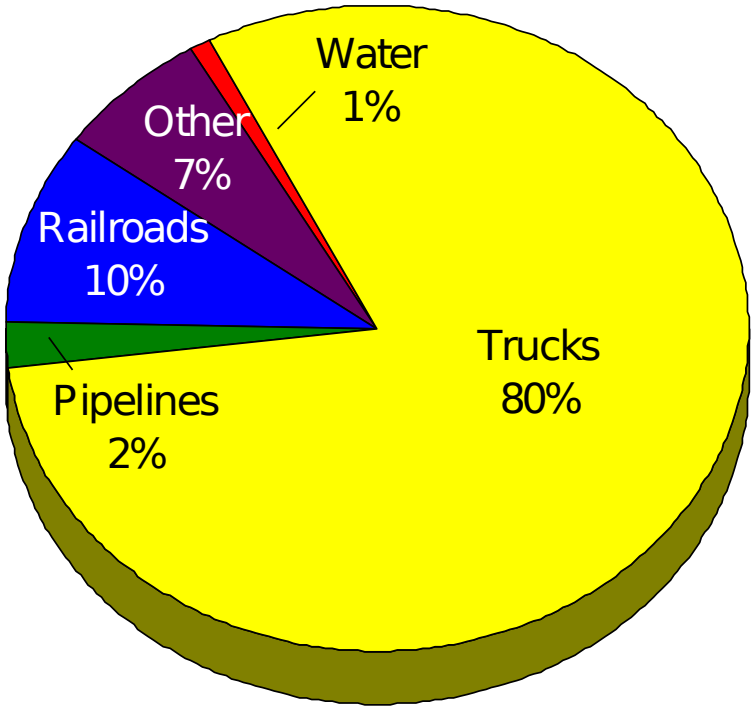
*Excludes trackage rights. **Includes CN and CP operations that are not part of a CN- or CP-owned Class I carrier. Source: AAR

U.S. Intercity Freight Market Share by Mode - 2001

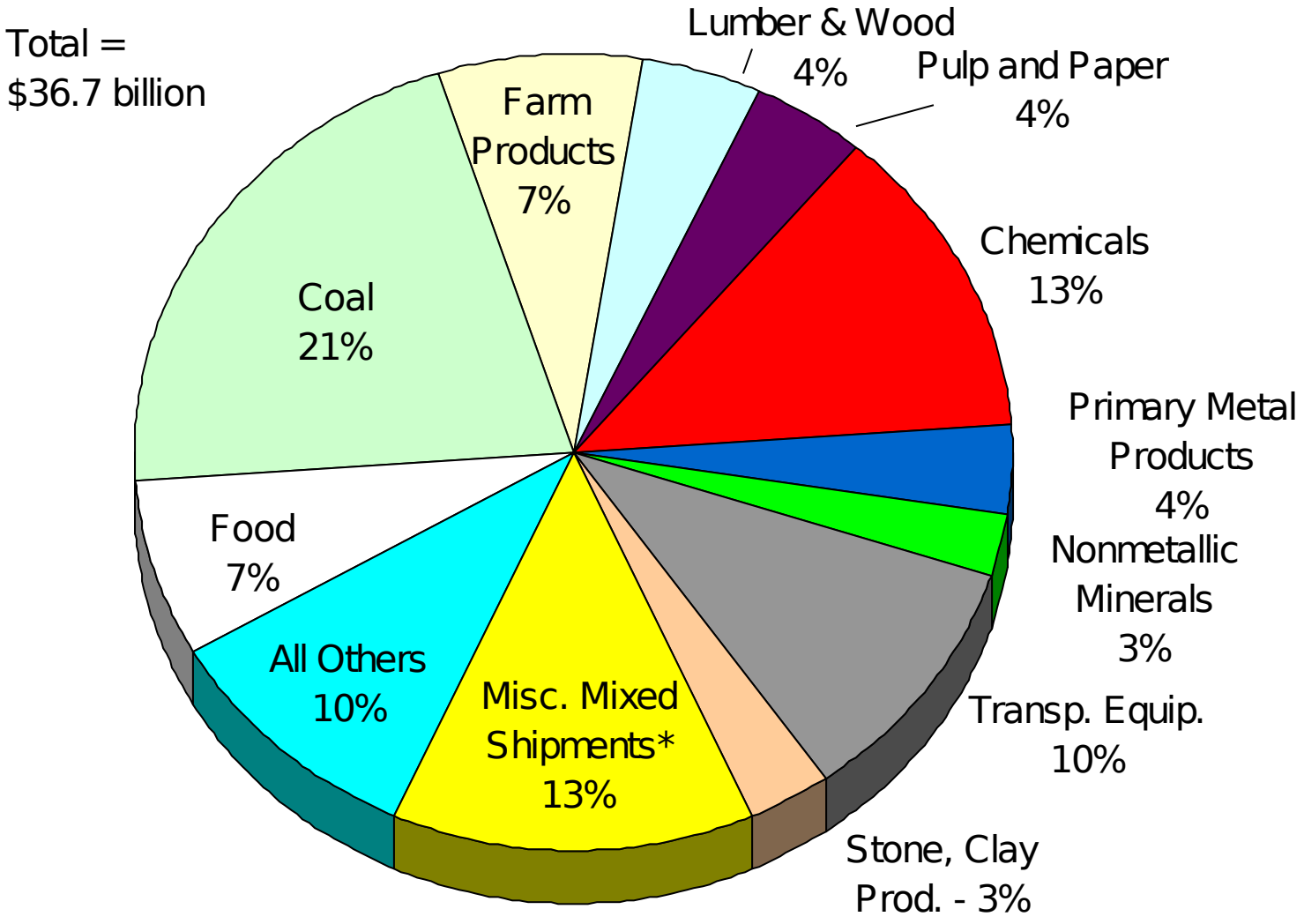
Ton-Miles



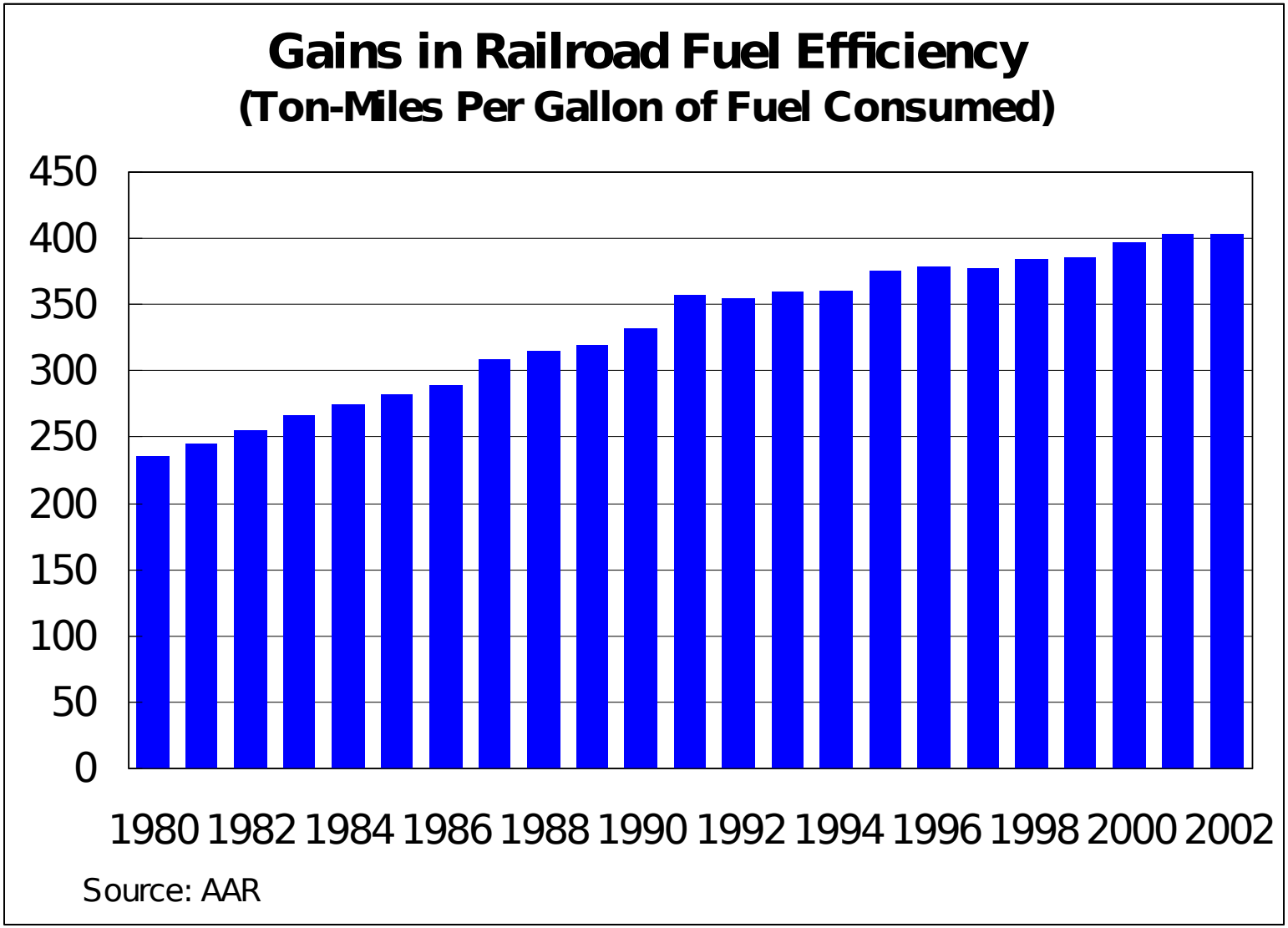
Revenue



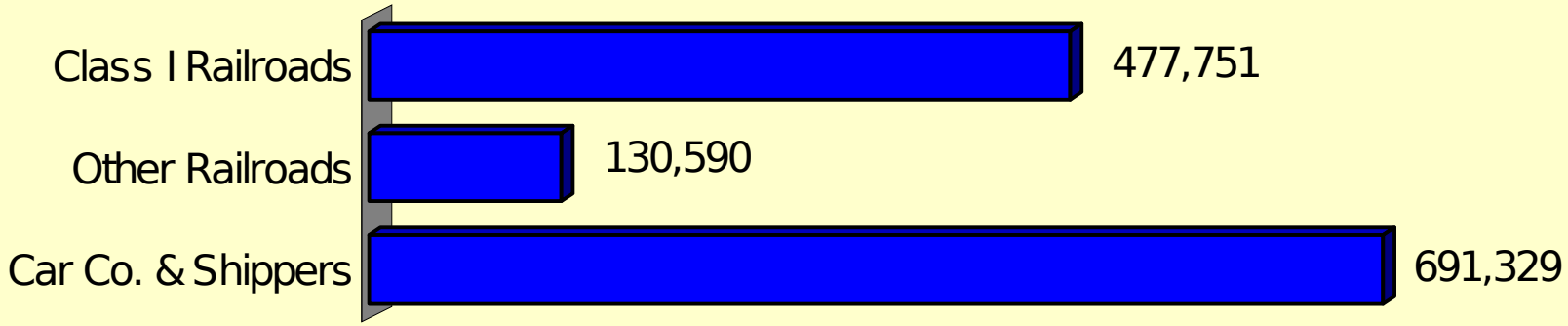
Class I Gross Freight Revenue by Commodity: 2002



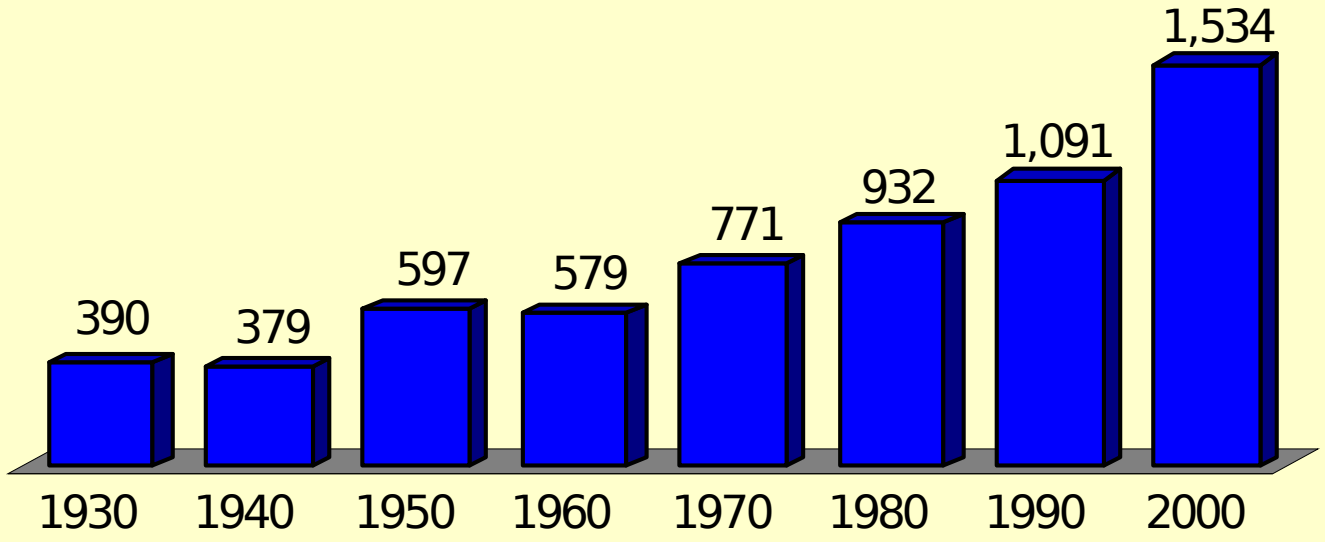
*Mostly intermodal. Intermodal is also disbursed in individual commodity categories. Source: AAR


Gains in Railroad Fuel Efficiency
(Ton-Miles Per Gallon of Fuel Consumed)
450
400
350
300
250
200
150
100
50
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Source: AAR

2002 U.S. Freight Car Ownership*



U.S. Railroad Ton-Miles (bil)



Summary

- **Committed to serving the needs of the Department of Defense**
  - **OEF**
  - **OIF I & II**
- **Participating in CFWG to determine replacement options for chain tie-down flatcar fleet**
- **We welcome the opportunity to grow our market share!**

Demand Planning

Katherine Bezold
Norfolk Southern

Demand Planning in the Supply Chain

What is it ?

and

Why it's important?

Demand Planning in the Supply Chain

- **Definition: Projection into the future of the expected use of materials, goods, or services given a stated set of environmental conditions**

Demand Planning, continued

- Whether you're a for-profit company, non-profit, or government agency, everyone has a need to plan
- Grocery Shopping? Vacation?
- Key Drivers
  - Capital Budget Requirements
  - Revenue Projection and Expense Budgets
  - Resource Requirements Equipment, Labor
  - Earnings per share

Demand Planning Requirements

- Trust and Partnership
- Connectivity
- Collaboration
- Visibility of the Supply Chain
- Fulfillment Excellence
- Value Creation

Planning with the Railroads

- Systems are designed to lower cost
- Can’t just pick up the phone – Planning is Required
- We need to Understand Your Requirements
  - Year in advance (long-term)
  - Quarterly update (mid-term)
  - Weekly or daily (short-term)
- Need to provide, equipment, services, and resources

Planning with the Railroads

- **Information in advance drives supply chain excellence**
- **Allows us to meet your Order to Delivery Requirements—“Time Definition”**
- **Lowest System Cost**

Why is it Important?

- **Flawless execution - lives are at stake**
- **Eliminate expedited premium transportation**
- **Optimization of mode**
- **Minimize cost**
- **Minimize service disruptions**

Rail Industry ITV and TAV

Dave Hallberg
Burlington Northern &
Santa Fe Railway

Rail Industry eBusiness

- **Each Class I railroad is working to automate customer transactions**
  - **Speed**
  - **Efficiency**
- **Interline shipment data is shared between railroads in the route**
- **Movement events are stored in rail industry central repository (*Rail Inc*)**

Steelroads – eBusiness for Jointly Served Customers

- ***Steelroads*** **is a single interface to communicate with all serving carriers to do the following:**
  - **Transmit Waybills**
    - **Waybill multi-hazardous commodities on one carload**
  - **Track & Trace Shipments**
    - **Gain visibility with multiple railroads**
    - **Some participating shortlines**
- **www.steelroads.com**

Rail Automated Carrier Interface (ACI) Committee

- **Members: GFM, SDDC, Class 1 Railroads**
- **Objective: Create the ability for DoD shippers to directly exchange rail billing information, eliminating double data entry**
- **Railroads waiting for GFM programming completion**

Rail Road *eBusiness* Offerings

- All Class 1 railroads have web-based tools to manage freight
- BNSF
  - *iPower* suite of tools to Plan, Ship, Trace, and Pay at www.bnsf.com
  - Offers customized reporting and TAV by Unique Shipment Number functionality
- CSXT
  - Track, Trace, Ship, Pay
  - www.csxt.com

Rail Road *eBusiness* Offerings (cont'd)

- **NS**
  - **Tracing, Equipment Instructions, Freight Billing**
  - **AccessNS at www.nscorp.com**

- **UP**
  - **Create custom reports that can be emailed daily or on demand**
  - **Voice recognition technology**
  - **www.uprr.com**

BNSF

Burlington Northern Santa Fe Railway

iPower v2.0

The Power of Interactive, Internet, Intelligence

Introducing BNSF iPOWER...

PLAN

SHIP

TRACE

MANAGE

PAY

BNSF iPower is an integrated set of Web-enabled tools organized around the shipping process that help keep your shipments moving from beginning to end. Scheduling, inventory management, paying freight bills and other processes are now online and easier than ever before.

BNSF iPower—the power of Interactive, Internet, Intelligence.

Start Auto Play or select from the menu items above to begin.

Auto Play

Replay Intro

We Can Move Your World.™

Call Toll Free:
1-800-809-2673 Select Option 4, then Option 4 again

Audio: OFF

Quit Demo

Go online to register and learn more about iPower

New Customer - Start Here

For help using ShipCSX, call 1-877-ShipCSX. CSX Home ShipCSX Home Quick Links GO

ShipCSX

ShipCSX Log In User ID GO

Sign up for eBusiness Forgot your password?

You are here: ShipCSX > Getting Started > eBusiness Tour

March 22, 2004 10:27 AM EST

ShipCSX eBusiness Tour

Plan Ship Trace Pay Resources

Welcome to the tour of ShipCSX
- our eBusiness application.

This tour will help you see how ShipCSX can work for you.

ShipCSX is designed around the four simple steps of our easy shipping process -

Plan, Ship, Trace and Pay.

Next

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https://www2.nscorp.com/accessNS/default.htm

NORFOLK SOUTHERN *The Thoroughbred of Transportation*

home

ommerce at Norfolk Southern
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MS
Coal
Grain

uipment Tracking
Customized Reports
Demand Trace
Rail Tracking Off-Line
Shipment History
Shipment Weights
Waybill Verification Inquiry

uipment Instructions
Bill of Lading (iBOL)
Diversion and Reconsignment
Equipment Orders

ight Billing Applications
eFreightBill
Mileage Inquiry
Rate Inquiry
Rate Request

Log on to: accessNS SM

User ID:

Password:

Register for accessNS

Continue Clear Help

eCommerce at Norfolk Southern

The Norfolk Southern eCommerce team is committed to providing accurate, fast and informative business transactions. The NS eCommerce suite encompasses everything from Electronic Data Interchange (EDI) to the World Wide Web. For more information on EDI or any of these e-Commerce applications please contact the Electronic Commerce Hotline at **(800) 235-5551** or echelp@nscorp.com.

Browser and Site Requirements
Register for accessNS
Terms and Conditions
Privacy Policy

elcome to accessNS

Local intranet

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Customers

Return To:
Customers
UP Homepage

Quick Links:
Customers
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Find a Price
Service Area Map
Bulletins/News
Employees
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To Report UP Railroad Emergencies:
1-888-877-7267

Applications

Customer Applications

To learn about a specific application, select its ? symbol.

Secure Applications

Available only to registered members of MyUPRR. To learn about a specific application, select its ? symbol.

Ship

- ? Bill of Lading
- ? Waybill History Inquiry
- ? Pended Waybill Inquiry

Trace

- ? Secured Equipment Trace
- ? Train Inquiry
- ? Train Slot Reservations

Manage

- ? Repetitive Inquiry
- ? Cutoff Times
- ? Chemical Private Empty Storage

Manage Billing and Payments

- ? Web Payment

Find Greater Capabilities at

myUPRR

Secure Tools, Applications and Reports to help manage shipments, save time, & simplify your business.

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- **Change Your MyUPRR Preferences**
  Change Your Password and Personal Information Online

Public Access Applications

- ? **Find a Price and Transit Time**
  Price and Transit Time Inquiry
- ? **Find Reciprocal Switching Information**
  UP Reciprocal Switching Circular
- ? **Calculate UP Mileage**
  UP Mileage Calculator
- ? **Trace a Motor Vehicle Shipment**
  For rail cars carrying motor vehicles

Railroad Safety and Security

Michael Martino

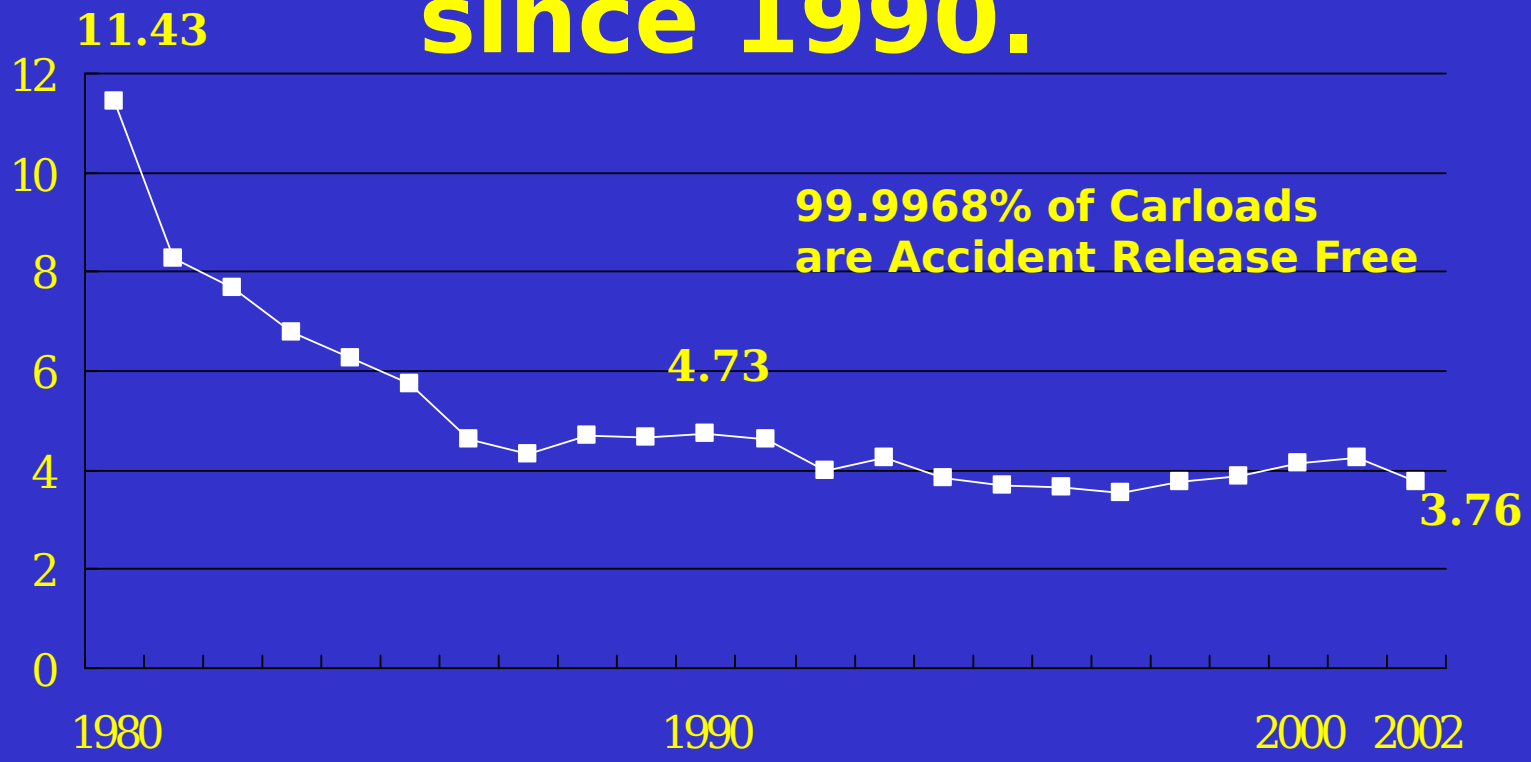
The Association of American Railroads

U.S. Railroad Safety Statistics

In 2003, U.S. railroads achieved their safest year ever for the following measures:

- **Total Rail-Related Casualties**
- **Employee On-Duty Fatalities (20), Injuries, & Rates**
- **Grade Crossing Collisions & Rates**
- **Grade Crossing Fatalities, Injuries, & Rates**

Train accidents per million train-miles have dropped 67% since 1980 and 21% since 1990.

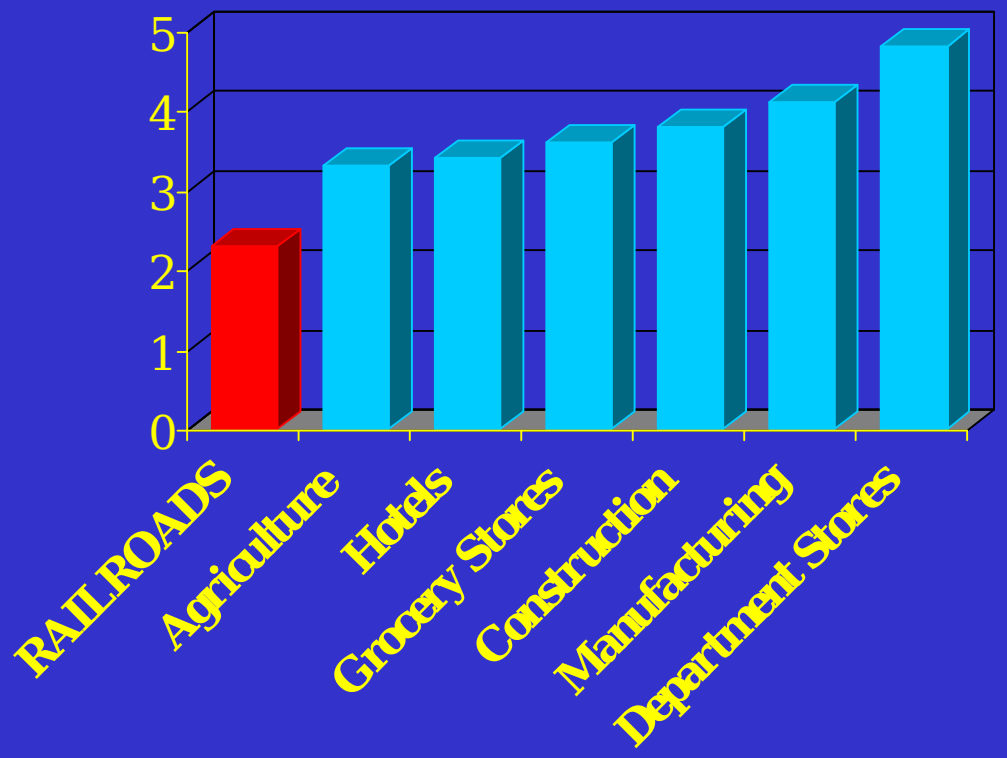


Sources: FRA, Railroad Safety Statistics Annual Report 2002, Tables 1-1, 1-2.
FRA, Accident/Incident Bulletin, 1980-1996, Tables 19, 36.
FRA website: http://safetydata.fra.dot.gov/Prelim/2002/r01.htm (preliminary

Note: Excludes grade crossing accidents.

Railroads have lower employee injury rates than do other major industry groups.

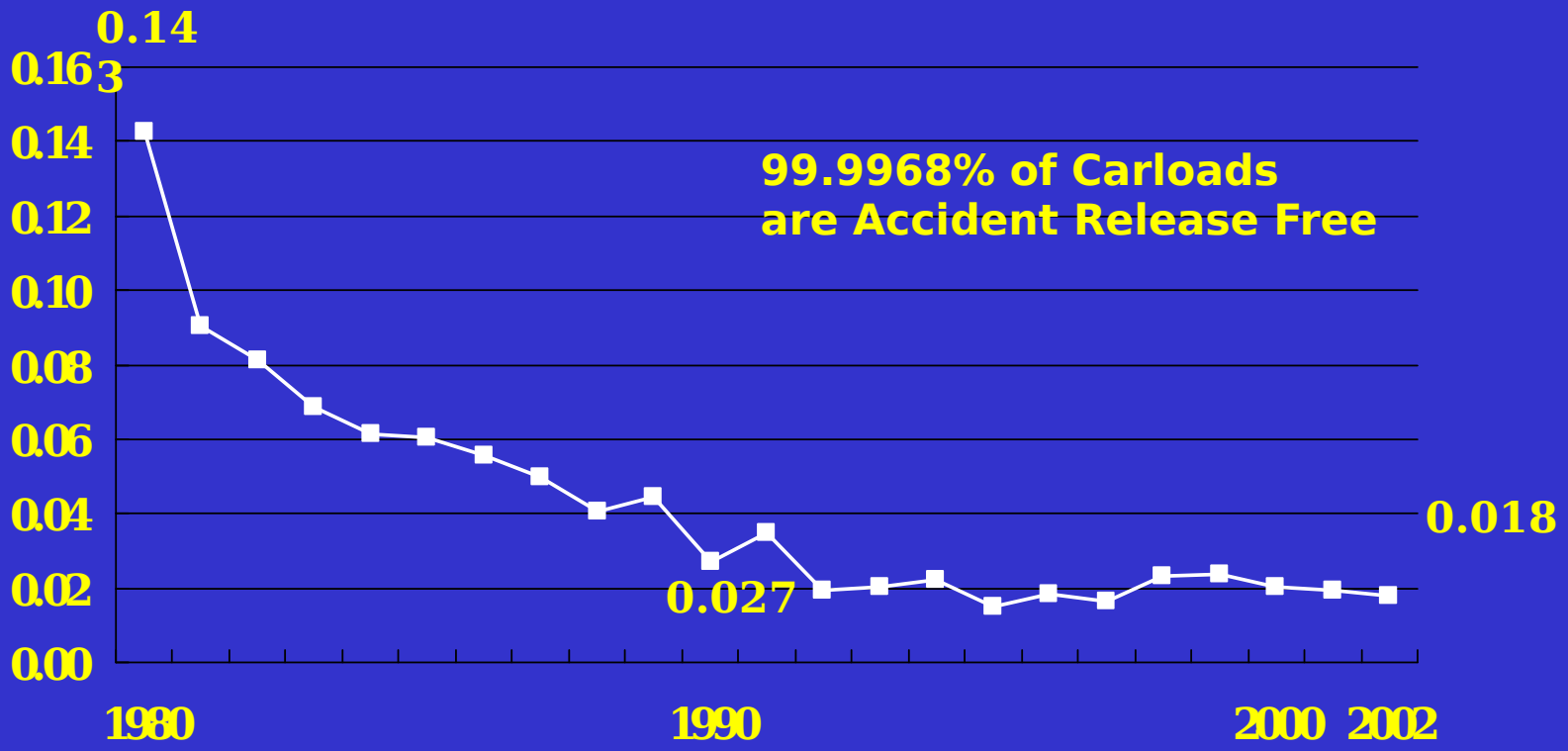
Lost Workday Injuries & Illnesses per 100 Full Time Employees, 2



Source: Bureau of Labor Statistics, http://www.bls.gov/iif/oshwc/osh/os/ostl

Hazmat accident rates have declined 87% since 1980 and 34% since 1990.

Train Accidents with a Release per Thousand Carloads



Sources: FRA, Accident/Incident Bulletin, Table 26. FRA, RR Safety Statistics Annual Reports, 1997-2002, Tables 6-1. ICC/STB Waybill Sample. 1995-2002 carloadings adjusted to counter known hazmat underreporting. Note: An accident may involve releases from more than one car.

Magnitude of the U.S. Railroad Industry

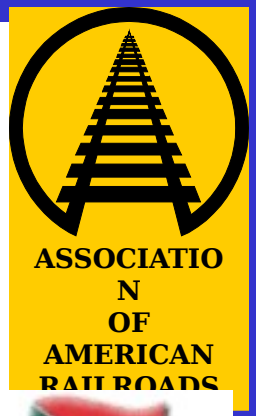
- Carloads Originated: 27.2 Million
- Revenue Ton-Miles: 1.5 Trillion
- Locomotives: 20,000
- Freight Cars: 1.3 Million
- Trains per Day: 12,000
- Current Taxes: $3.6 Billion

Railroads' Importance to the U.S. Economy

Railroads transport:

- **42% of intercity ton-miles**
- **64% of coal used for electric power**
- **40% of the grain harvest**
- **70% of automobiles made in America**
- **20% of chemicals, and more of those essential to the public health**

Railroad Security Task Force



BEST PRACTICES

Model	Purpose
Analytical Risk Management (ARM) (CIA & Intelligence Community)	Risk Analysis
CARVER (Army Special Operations)	System Analysis/Fixed Site
IDEF0 (Commerce Dept)	Function/Process Modeling
DOD/DA AT/FP Plans	Depart of Defense/Army Anti-Terrorist, Force Protection
GMITS	Guidelines for Mngt of IT Systems
SSE-CMM	System Security Engineering
INFOSEC Assessment Methodologies (IAM) (NSA)	Information System Vulnerabilities

Railroad Security Task Force

"Are we more secure today than yesterday?"

AAR Board
AAR Security Task Force Steering Committee
President of the AAR
Hazardous Materials Critical Action Team
Operations Security Critical Action Team
Infrastructure Critical Action Team
IT & Communications Critical Action Team
Military Liaison Critical Action Team

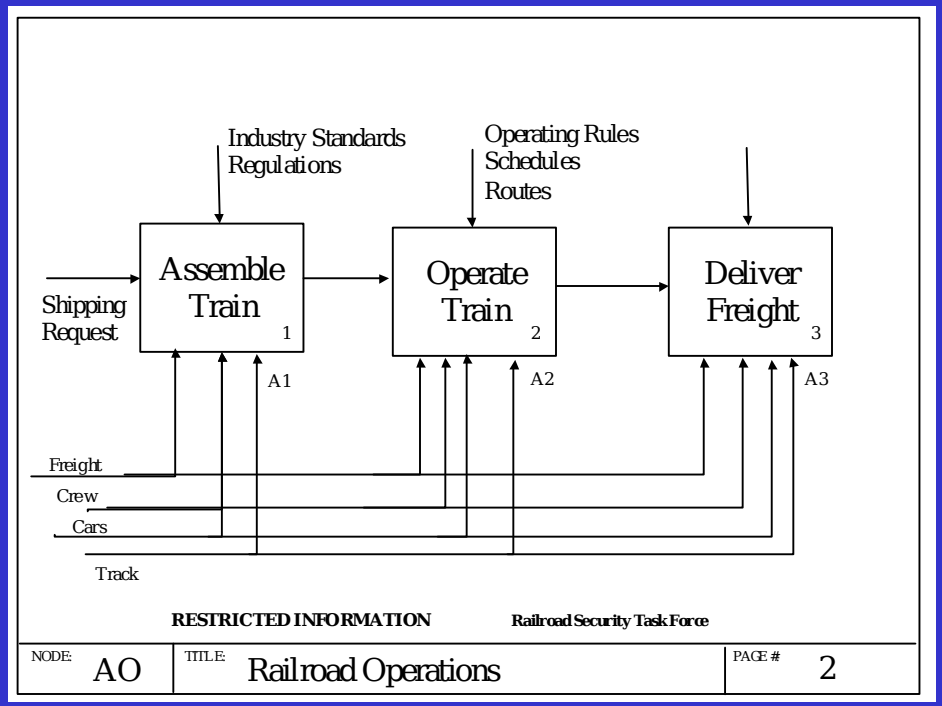
e than 150 highly-experienced railroad, customer, and security personn working since September 25th on 5 Critical Action Teams

Products

- **Physical Assets Data Base - 1308 Facilities (Annex I)**
  - **Tunnels - 265**
  - **Bridges - 762**
  - **Hump Yards - 54**
  - **Data / Dispatch Centers - 33**
  - **Fuel Centers - 138**
  - **Crew Management Centers - 7**
  - **Other Facilities - 49**
- **Countermeasures**
- **Alert Level Actions**

Process

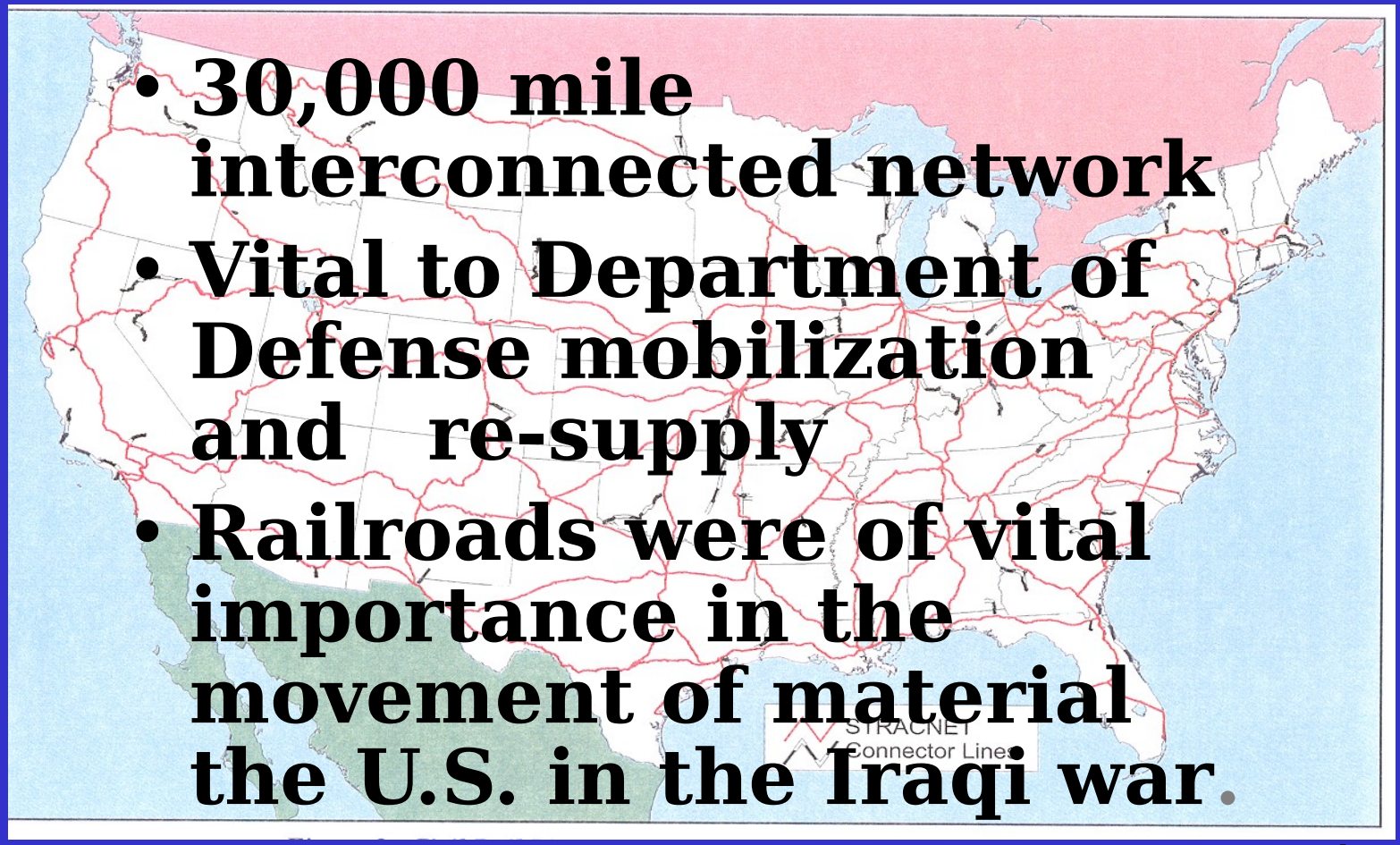
- **Documented 'Life Cycle of a Train' and produced an Integration Definition [IDEF (0)] Functions Model (Annex J)**
- **Identified Vulnerabilities and Countermeasures to Railroad Operations**



Areas of Concern

- Tracing (of Shipments)
- Computer Centers and Applications
- Data Systems and Software Integrity
- Control/Dispatching Centers
- Communications Systems and Telecommunications Companies
- Communication Control Centers
- Key Personnel
- Contractors

Strategic Rail Corridor Network (STRACNET)



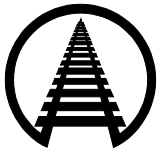
- 30,000 mile interconnected network
- Vital to Department of Defense mobilization and re-supply
- Railroads were of vital importance in the movement of material the U.S. in the Iraqi war.

Overview of the Plan

- Voluntary Plan
- Approved by the AAR Board of Directors on December 6, 2001

RESTRICTED INFORMATION
Railroad Security Task Force

Terrorism Risk Analysis
and
Security Management Plan



Prepared by the
Association of American Railroads
Railroad Security Task Force

February 1, 2002

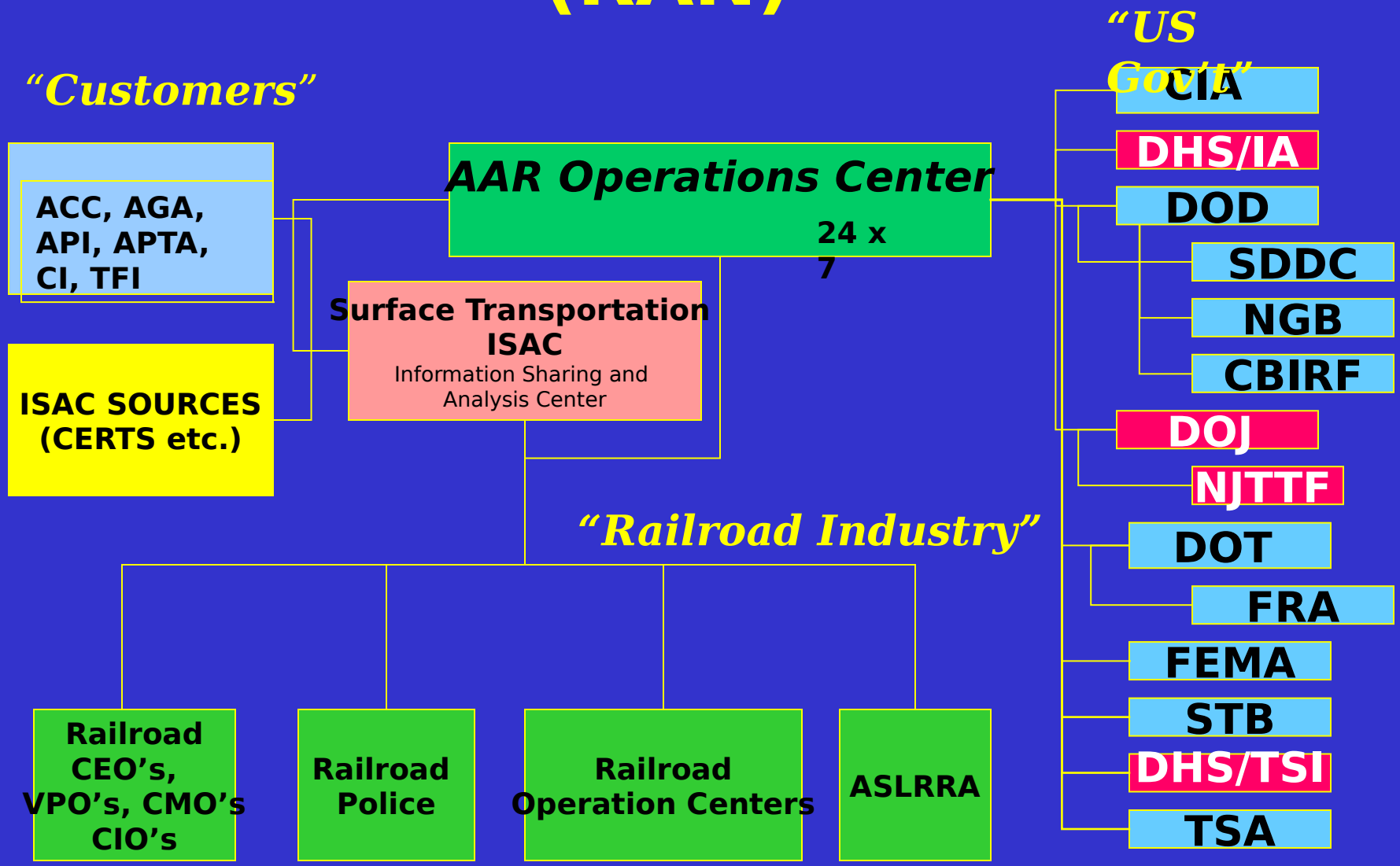
(Revised April 3, 2003)

EWA Information and Infrastructure Technologies, Inc.
13873 Park Center Road Suite 500
Herndon, Virginia 20171

The data in this report shall not be disclosed outside the Association of American Railroads and will not be duplicated, used, or disclosed in whole or in part for any purpose other than to improve the security of the people, processes, and technology of the transportation infrastructure of the United States.

RESTRICTED INFORMATION
Railroad Security Task Force

Railway Alert Network (RAN)



Alert Level Actions

Alert Levels

- **Level 1 -- New Normal day-to-day operations**
- **Level 2 -- Heightened Security Awareness**
- **Level 3 -- A Credible Threat of an attack on the US or railroad industry (continuously reevaluated)**
- **Level 4 -- A Confirmed Threat of attack against the railroad industry or actual attack in the US (implemented up to 72 hours and reevaluated)**

ALERT LEVEL ACTION

Prepared by
THE CAPLES COMPANY
ADVERTISING
CHICAGO
U. P. Ad No. 3457—1 page (7" x 10¼")—Forbes, May 1—Business Week, May 2—Nation's Business, May, 1942 (3573)
LET'S ALL GET "STEAMED UP"
UNION PACIFIC
THE RAILROADS ARE THE FIRST LINE OF DEFENSE
"KEEP 'EM ROLLING"

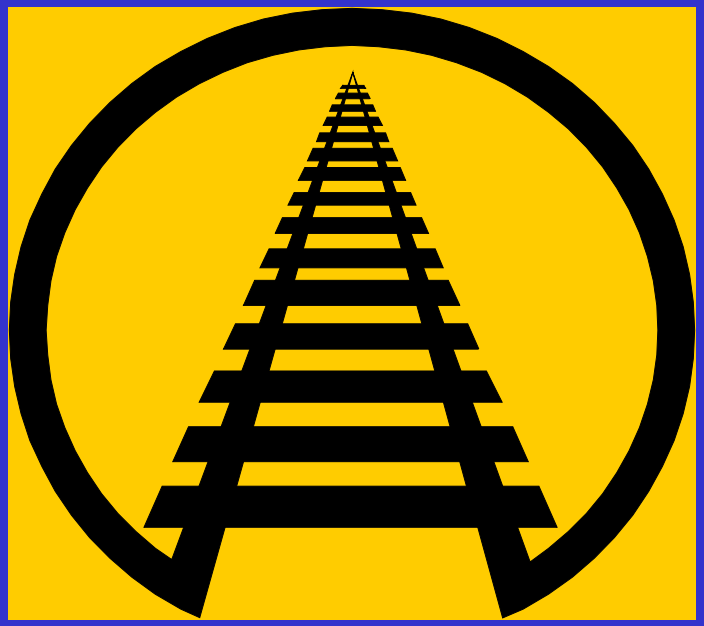
	OPERATIONS	IT & COMM	POLICE
LEVEL 1	9	16	8
LEVEL 2	12	0	9
LEVEL 3	23	5	12
LEVEL 4	15	1	3

Victorious warriors win first and then go to war,

while defeated warriors go to war first and then seek to win.

Sun Tzu

THANK YOU



QUESTION & ANSWER SESSION